

ABSTRACT OF THE INVENTION

A beamsplitter apparatus for use with high-power radiation is disclosed. The apparatus includes a thermally conductive frame with a central aperture. The frame holds a window in the central aperture at the window's periphery. The window includes a diamond substrate with an optional coating formed thereon. Because the substrate is diamond and the frame is thermally conductive, the window is less susceptible to thermal effects caused by absorption of the incident radiation by the window. Thus, the original flatness of the widow surfaces is preserved, and variations in its index of refraction will be minimal. The result is that high-power radiation beams reflected from and transmitted by the widow remain substantially undistorted.